

From gsantacana at gmail.com Fri Nov 2 23:39:12 2012  
From: gsantacana at gmail.com (Guido Santacana)  
Date: Fri, 2 Nov 2012 23:09:12 -0430  
Subject: [BoatAnchors] [Hammarlund] "Bargain" Capacitors  
In-Reply-To: <1351888483.1928.14.camel@lancelot>  
References: <1351852193.69352.YahooMailNeo@web125503.mail.ne1.yahoo.com>  
<CAFx0t265\_HJPD1rHQGVFe9zW5xF4G\_ee02-r+-oW509jEBAw@mail.gmail.com>  
<1351888483.1928.14.camel@lancelot>  
Message-ID: <CA01yix1E884\_8SiPy1A+CLwLBVMb02nfyJfA2-GsyCG56joK-g@mail.gmail.com>

I saw a box with about 12 used BBs go for \$60.00 on the e place. They were not even tested. Just thinking of all the ones that I have removed and thrown away in all these years! The audiophiles are buying them as soon as they are offered. PT Barnum said something about this.

Guido KP4FAR

On Friday, November 2, 2012, Bill Cromwell <wrcromwell at gmail.com> wrote:  
> On Fri, 2012-11-02 at 14:19 -0400, Michael Clarson wrote:  
>> Its a fair price. It takes quite a while to match a pair with exactly the  
>> same leakage. --Mike, WV2ZOW  
>  
> When I match leaky caps or 6146s they are a match if I see them both in  
> the same county! The KISS principle (evil grin).  
>  
> 73,  
>  
> Bill KU8H  
>  
> -----  
> Hammarlund mailing list  
> Home: <http://mailman.qth.net/mailman/listinfo/hammarlund>  
> Help: <http://mailman.qth.net/mmfaq.htm>  
> Post: <mailto:Hammarlund at mailman.qth.net>  
>  
> List Administrator: Duane Fischer, W8DBF  
> \*\* For Assistance: [dfischer at usol.com](mailto:dfischer at usol.com) \*\*  
>  
>  
> This list hosted by: <http://www.qsl.net>  
> Please help support this email list: <http://www.qsl.net/donate.html>  
>

From gumbear at pacbell.net Sat Nov 3 00:39:12 2012  
From: gumbear at pacbell.net (Arden Allen)  
Date: Fri, 2 Nov 2012 21:39:12 -0700  
Subject: [BoatAnchors] [Hammarlund] "Bargain" Capacitors

References:

<1351852193.69352.YahooMailNeo@web125503.mail.ne1.yahoo.com><CAFx0t265\_HJPD1rHQGVFe9zW5xF4G\_ee02-r+-oW509jEBAw@mail.gmail.com><1351888483.1928.14.camel@lancelot>  
<CA01yix1E884\_8SiPy1A+CLwLBVMb02nfyJfA2-GsyCG56joK-g@mail.gmail.com>  
Message-ID: <003601cdb97d\$fd75aa90\$650aa8c0@KB6NAX>

> I saw a box with about 12 used BBs go for \$60.00 on the e place. They were not even tested. Just thinking of all the ones that I have removed and thrown away in all these years! The audiophiles are buying them as soon as they are offered. PT Barnum said something about this.

Guido KP4FAR

Well, you gotta replace those good vintage capacitors with SOMETHING, no?

Arden Allen  
KB6NAX

Stupidity is far more dangerous than evil,  
for evil takes a break from time to time,  
stupidity does not. - Anatole France

From kd5byb at kd5byb.net Sun Nov 4 08:23:12 2012  
From: kd5byb at kd5byb.net (Ben Hall)  
Date: Sun, 04 Nov 2012 07:23:12 -0600  
Subject: [BoatAnchors] Checking the cap checker...  
Message-ID: <50966C40.8070304@kd5byb.net>

Good morning all,

Ed Knobloch proposed an experiment on my Heathkit C-3 so I could get a feeling for how sensitive it is. This was back the series of posts replying on my question regarding metal-can caps in my RBA-5 receiver.

(Side note on the RBA-5: The ones dripping oil have been replaced. Several others that gave odd readings in-situ have also been replaced and external checks showed them to be electrically leaky.)

Having a few quiet moments this morning, I did the experiment. Took a known-good, brand-new, 0.27uF/630VDC plastic cap and hooked it up. I then added parallel resistors to simulate leakage. Used the 150VDC setting. Results as follows:

Resistance : Shadow (on eye tube)

1 Meg Ohm: closed

3.3 Meg Ohms: closed  
5.6 Meg Ohms: closed  
6.8 Meg Ohms: closed  
10 Meg Ohms: closed, but I can see movement  
16.4 Meg Ohms (two 8.2 in series): barely open

Checking the test voltage in the last configuration yielded 130 VDC applied.

I now have a pretty good feeling that the cap checker is doing okay at checking leakage. However, I do need to open it up and check the resistors to see if they have drifted.

thanks much and 73,  
ben, kd5byb

From smithab11 at comcast.net Sun Nov 4 08:56:08 2012  
From: smithab11 at comcast.net (B Smith)  
Date: Sun, 4 Nov 2012 08:56:08 -0500  
Subject: [BoatAnchors] Checking the cap checker...  
In-Reply-To: <50966C40.8070304@kd5byb.net>  
References: <50966C40.8070304@kd5byb.net>  
Message-ID: <A2B65C8FF5FB4A5FBA3E19C6BF56E8B6@Dell560>

Easiest thing to do is add a microammeter meter in the circuit and stop the guess work. I mounted mine on an aluminum bracket to the side of the C-3. Be sure and mount a small switch over the meter to short it out when necessary.

breck k4che  
Dover, Delaware, ain't nutten in Dover except  
A NASCAR track, chickens, and hams that can't solder.

-----  
From: "Ben Hall" <kd5byb at kd5byb.net>  
Sent: Sunday, November 04, 2012 8:23 AM  
To: "Old Tube Radios" <boatanchors at theporch.com>  
Subject: [BoatAnchors] Checking the cap checker...

> Good morning all,  
>  
> Ed Knobloch proposed an experiment on my Heathkit C-3 so I could get  
> a feeling for how sensitive it is. This was back the series of  
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> receiver.  
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> Several others that gave odd readings in-situ have also been  
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> ben, kd5byb  
>  
> -----  
> BoatAnchors mailing list  
> BoatAnchors at theporch.com  
> <https://minime.theporch.com/mailman/listinfo/boatanchors>  
>

From johnmb at nc.rr.com Sun Nov 4 13:01:22 2012  
From: johnmb at nc.rr.com (john)  
Date: Sun, 04 Nov 2012 13:01:22 -0500  
Subject: [BoatAnchors] Checking the cap checker...  
In-Reply-To: <50966C40.8070304@kd5byb.net>  
References: <50966C40.8070304@kd5byb.net>  
Message-ID: <6.2.1.2.2.20121104130020.03cad420@pop-server.nc.rr.com>

That's an interesting experiment, and it seems like it's quite sensitive  
(who doesn't like magic eye tubes anyway?)

I'll be interested in your findings in regards the fixed resistors.

Thanks for taking the time to share this with us

John K5M0

At 08:23 AM 11/4/2012, Ben Hall wrote:

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>

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>feeling for how sensitive it is. This was back the series of posts  
>replying on my question regarding metal-can caps in my RBA-5 receiver.

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>(Side note on the RBA-5: The ones dripping oil have been replaced.  
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>resistors to see if they have drifted.

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>thanks much and 73,

>ben, kd5byb

>

>-----  
>BoatAnchors mailing list

>BoatAnchors at theporch.com

><https://minime.theporch.com/mailman/listinfo/boatanchors>

From infomet at embarqmail.com Sun Nov 4 15:48:19 2012

From: infomet at embarqmail.com (Wilson Lamb)

Date: Sun, 4 Nov 2012 15:48:19 -0500

Subject: [BoatAnchors] Cap Checker

Message-ID: <961DECA6F80747959D6D1CECFF5E6584@WilsonPC>

Put back to back diodes across the meter!!!  
WL

From gumbear at pacbell.net Sun Nov 4 15:56:08 2012  
From: gumbear at pacbell.net (Arden Allen)  
Date: Sun, 4 Nov 2012 12:56:08 -0800  
Subject: [BoatAnchors] Checking the cap checker...  
References: <50966C40.8070304@kd5byb.net>  
Message-ID: <002101cdbacf\$0c708630\$650aa8c0@KB6NAX>

> .....  
1 Meg Ohm: closed  
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You will find in the Sprague Tel-Ohmike manuals a table of leakage values for good paper capacitors. A typical cap measuring 5000 MEGohms or higher is still considered good for the long term. Caps used for plate blocking (coupling) need to have very low leakage to avoid upsetting next stage grid bias conditions. Caps used for cathode resistor bypassing aren't a problem because the cap is shunted by the cathode resistor which is in the hundreds to a few K ohms. Leaky caps across AC line input will eventually explode and burn because there is no limitation of current when the cap fails. Things to think about.

Arden Allen  
KB6NAX

If you pick up a starving dog and  
make him prosperous, he will not  
bite you. This is the principle  
difference between a dog and  
a man. -Mark Twain

From kb8tad at gmail.com Sun Nov 4 17:41:46 2012  
From: kb8tad at gmail.com (Rich Post)  
Date: Sun, 4 Nov 2012 17:41:46 -0500  
Subject: [BoatAnchors] Checking the cap checker...  
In-Reply-To: <A2B65C8FF5FB4A5FBA3E19C6BF56E8B6@Dell1560>  
References: <50966C40.8070304@kd5byb.net>  
<A2B65C8FF5FB4A5FBA3E19C6BF56E8B6@Dell1560>  
Message-ID: <CAEJr0Fvg98ng3r=sdsRKAcByj0=1-wmPs80+kopc07sasogZ2Q@mail.gmail.com>

It's even easier to simply put a cheap Harbor Freight digital meter  
across the cap tester and look for the eye closure. The cheapest

meter is a constant 1 meg load. Just set it on the 1000 volt DC scale and read the minimum volts at which the eye tube closes. You may have to feed the cap tester with a variac to jockey the DC volts a bit since voltages on the C-3 are few and fixed. The voltage reading for the 1 meg load reads directly as microamps. Or just put the meter in series with the cap and read its leakage at the voltage selected.

The leakage level that you determined was needed to close the eye tube of a Heath C-3 is in line with what I found on a Knight cap tester with a near identical circuit. The later Heathkit IT-11 and IT-28 are my favorites since they allow on-board adjustment of the sensitivity for leakage readings. Heath chose a leakage of 2 microamps as the fail point for paper and mica caps.

Here's my notes on the Knight, the later Heathkits, and a couple of others.

<http://www.ohio.edu/people/poster/bapix/CapChkr2.htm>

73 de Rich KB8TAD

On Sun, Nov 4, 2012 at 8:56 AM, B Smith <smithab11 at comcast.net> wrote:

> Easiest thing to do is add a microammeter meter in the circuit and stop the  
> guess work. I mounted mine on an  
> aluminum bracket to the side of the C-3. Be sure and mount a small switch  
> over the meter to short it out when  
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>

>

> breck k4che

> Dover, Delaware, ain't nutten in Dover except

> A NASCAR track, chickens, and hams that can't solder.

> -----

> From: "Ben Hall" <kd5byb at kd5byb.net>

> Sent: Sunday, November 04, 2012 8:23 AM

> To: "Old Tube Radios" <boatanchors at theporch.com>

> Subject: [BoatAnchors] Checking the cap checker...

>

>

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>> feeling for how sensitive it is. This was back the series of posts replying  
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>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> https://minime.theporch.com/mailman/listinfo/boatanchors
>>
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

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From gumbear at pacbell.net Sun Nov 4 19:59:05 2012
From: gumbear at pacbell.net (Arden Allen)
Date: Sun, 4 Nov 2012 16:59:05 -0800
Subject: [BoatAnchors] Checking the cap checker...
References:
<50966C40.8070304@kd5byb.net><A2B65C8FF5FB4A5FBA3E19C6BF56E8B6@De11560>
<CAEJr0Fvg98ng3r=sdsRKAcByj0=1-wmPs80+kopc07sasogZ2Q@mail.gmail.com>
Message-ID: <000f01cdbaf1$0c872300$650aa8c0@KB6NAX>

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```

> ..... Heath chose a leakage of 2
> microamps as the fail point for paper and mica caps. ....

```

That would make the Heath useless, IMO.  $150 / 2e-6 = 75e6$ . That would make



the leakage resistance 75 megohms and would produce a 0.2 volt drop across a 0.5 megohm grid resistor, enough to upset bias conditions.

The real rub is that's the value of leakage resistance you would obtain at room temperature, not what would ensue at operating temperature.. Leakage increases approximately double for each 10 deg C (18 deg F) temperature rise. The insulation resistance would drop to around 20 megohms at 110 deg F operating temperature. That capacitor would obviously be junk.

Arden Allen  
KB6NAX

The average dog is a nicer person than  
the average person. -Andy Rooney

From kb8tad at gmail.com Sun Nov 4 23:25:34 2012  
From: kb8tad at gmail.com (Rich Post)  
Date: Sun, 4 Nov 2012 23:25:34 -0500  
Subject: [BoatAnchors] Checking the cap checker...  
In-Reply-To: <000f01cdbaf1\$0c872300\$650aa8c0@KB6NAX>  
References: <50966C40.8070304@kd5byb.net>  
<A2B65C8FF5FB4A5FBA3E19C6BF56E8B6@De11560>  
<CAEJr0Fvg98ng3r=sdsRKAcByj0=1-wmPs80+kopc07sasogZ2Q@mail.gmail.com>  
<000f01cdbaf1\$0c872300\$650aa8c0@KB6NAX>  
Message-ID: <CAEJr0FvMirgzXF+d3eV0mP\_7+BhA6RaGgW5QZ4n6S1mVaq1qvA@mail.gmail.com>

I'm certainly not going to defend Heath's choice of 2 uA as the go / no-go for paper and mica caps for the IT-11 and IT-28. However, compare their 2 uA with what I found in the Knight which passed any cap with less than 8 uA leakage at rated voltage. That is also the result that Ben found with his Heath C-3.

And yes, ANY positive voltage with a high impedance meter, however minute, at the input grid of an output tube in cathode bias gets my immediate attention. And I normally replace those as a matter of course, as well as most other coupling and bypass caps that see high voltage.

However, for low impedance low voltage circuitry, I will not automatically replace a cap. For an extreme contrasting example, the Hammarlund HQ-129 has an 0.05 MFD across its six ohm speaker line. A bit of leakage is certainly not going to hurt that circuit.

We all have our biases, pun not intended. As with most decisions, it depends...

Rich KB8TAD

On Sun, Nov 4, 2012 at 7:59 PM, Arden Allen <gumbear at pacbell.net> wrote:  
>> ..... Heath chose a leakage of 2  
> microamps as the fail point for paper and mica caps. ....  
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>  
> Arden Allen  
> KB6NAX  
>  
> The average dog is a nicer person than  
> the average person. -Andy Rooney  
>

From wb3fau55 at neo.rr.com Mon Nov 5 19:31:34 2012  
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)  
Date: Mon, 5 Nov 2012 19:31:34 -0500  
Subject: [BoatAnchors] Heath IT-28  
Message-ID: <20121106003134.H0LEE.165082.root@cdptpa-web27-z02>

I agree with you Rich, i have had a IT-28 for many years, having had it given to me by a friend who built it. I had use of a Jackson [model?] in school in the early 70s. It was a good one also. Also had a Paco tester not bad, but not nearly as reliable as the IT-28. Russ.

From navy.radio at gmail.com Thu Nov 8 11:34:03 2012  
From: navy.radio at gmail.com (Nick England)  
Date: Thu, 8 Nov 2012 11:34:03 -0500  
Subject: [BoatAnchors] wanted - Northern Radio Tone Keyer  
Message-ID: <CAB55hNctkGRfsHY05n-r0A4f26nRTGnc1WgnYDuw6x2CEgtPTQ@mail.gmail.com>

Howdy gang -  
I'm looking for a Northern Radio Type 102 Tone Keyer - military version is called KY-79/UR  
- tube type, 19" rack mount 3.5" high, meter in the center  
Please let me know if you've got one for sale or trade....  
cheers,

Nick K4NYW  
www.navy-radio.com

From jerry7proc at yahoo.com Thu Nov 8 13:02:24 2012  
From: jerry7proc at yahoo.com (Jerry Proc)  
Date: Thu, 8 Nov 2012 10:02:24 -0800 (PST)  
Subject: [BoatAnchors] Marconi Marine International Radio Gear  
Message-ID: <1352397744.57208.YahooMailNeo@web121102.mail.ne1.yahoo.com>

Hello Everyone,

?

I have just released Phase 2 of a web page which features post WWII marine communications gear manufactured by (or for) Marconi Marine International. The results can be seen at : <http://jproc.ca/britishmarconi/index.html>

?

As you can well appreciate, the information gathered here was scattered all over the web and in assorted manuals. It was my intention to capture all the pertinent material and post in one place. In the Equipment document, I have identified the gear for which I am missing specs or a photo or both. For classifying equipment as to vacuum tube, or solid state, I used the following rule. If a design uses even one vacuum tube ( or any hybrid design) it was listed in the vacuum tube section.?

During the research it was impossible to locate all the needed information so if anyone can help fill in any of the "holes" I would like to hear from you.

?

--

Regards,  
Jerry Proc  
E-mail: jerry7proc at yahoo.com

From n7rk at cox.net Thu Nov 8 14:01:08 2012  
From: n7rk at cox.net (David Hollander)  
Date: Thu, 08 Nov 2012 12:01:08 -0700  
Subject: [BoatAnchors] Marconi Marine International Radio Gear  
In-Reply-To: <1352397744.57208.YahooMailNeo@web121102.mail.ne1.yahoo.com>  
References: <1352397744.57208.YahooMailNeo@web121102.mail.ne1.yahoo.com>  
Message-ID: <509C0174.3080708@cox.net>

Really neat stuff Jerry. Thanks for posting this.

Tnx and 73,

Dave N7RK

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\*\*\*\*\*

Dave N7RK Boatanchors Home Page: <http://n7rk.com>  
Phoenix, Arizona \*DXCC Honor Roll\* \*WAZ#22 - 75 Meter SSB\*

ex-XE2/N7RK, N7RK/ZB2, VK2ERK, ZM0AJN, WB6NRK, WN6IWX

Boatanchor and Antique Radio Collector

From rbsingl at ilstu.edu Thu Nov 8 15:15:03 2012  
From: rbsingl at ilstu.edu (Singley, Rodger)  
Date: Thu, 8 Nov 2012 20:15:03 +0000  
Subject: [BoatAnchors] Marconi Marine International Radio Gear  
In-Reply-To: <1352397744.57208.YahooMailNeo@web121102.mail.ne1.yahoo.com>  
References: <1352397744.57208.YahooMailNeo@web121102.mail.ne1.yahoo.com>  
Message-ID: <0DEBF1C8D8437248BE53CD4213B89BD318E020F0@ISUEMBX01.ad.ilstu.edu>

Thanks so much for posting this Jerry! That is a lot of interesting information you have put together.

I recently restored a Marconi Nebula (rebadged Eddystone) and it is a very nice performer.

Rodger WQ9E

Dr. Rodger B. Singley  
Professor of Marketing

-----Original Message-----

From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of Jerry Proc  
Sent: Thursday, November 08, 2012 12:02 PM  
To: boatanchors at theporch.com  
Subject: [BoatAnchors] Marconi Marine International Radio Gear

Hello Everyone,

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I have just released Phase 2 of a web page which features post WWII marine communications gear manufactured by (or for) Marconi Marine International. The results can be seen at : <http://jproc.ca/britishmarconi/index.html>

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Regards,

Jerry Proc

E-mail: jerry7proc at yahoo.com

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BoatAnchors mailing list

BoatAnchors at theporch.com

<https://minime.theporch.com/mailman/listinfo/boatanchors>

From k4oah at mindspring.com Fri Nov 9 11:54:07 2012

From: k4oah at mindspring.com (Garey Barrell)

Date: Fri, 09 Nov 2012 11:54:07 -0500

Subject: [BoatAnchors] FS: Unique Drake Service Supplement CDs

Message-ID: <509D352F.3060202@mindspring.com>

Here is the information that Drake left out of their manuals!

Unique supplemental service information CDs available for the Drake A, B and C Lines, 2-B, 2-C / 2-NT, TR-4, and TR-4C/Cw/CwRIT.

High resolution color photos of the under chassis and individual PC boards of each unit, with all parts identified and keyed to a parts list make it easy to locate any component. No more trying to trace wires through bundles, etc. This information is not available elsewhere and really makes a difference in servicing these units.

These CDs are NOT just scans of the original manuals that were included with the equipment when new.

High resolution scans of the original manuals ARE on the CDs, along with scans of manuals for associated equipment such as the C-4, FS-4, MN2000, L-4B, W-4, etc.

Samples of these pages (at reduced resolution) and purchase information are at <www.k4oah.com>.

--

73, Garey - K40AH  
Glen Allen, VA

From gumbear at pacbell.net Fri Nov 9 15:45:55 2012  
From: gumbear at pacbell.net (Arden Allen)  
Date: Fri, 9 Nov 2012 12:45:55 -0800  
Subject: [BoatAnchors] FS: Unique Drake Service Supplement CDs  
References: <509D352F.3060202@mindspring.com>  
Message-ID: <000701cdbebbb\$3abc6780\$650aa8c0@KB6NAX>

> .....These CDs are NOT just scans of the original manuals that were included with the equipment when new.  
High resolution scans of the original manuals ARE on the CDs, along with .....

Could you clarify that a bit for us cognitive deficient, Garey? Thanks.

Arden

From k4oah at mindspring.com Fri Nov 9 16:06:02 2012  
From: k4oah at mindspring.com (Garey Barrell)  
Date: Fri, 09 Nov 2012 16:06:02 -0500  
Subject: [BoatAnchors] FS: Unique Drake Service Supplement CDs  
In-Reply-To: <000701cdbebbb\$3abc6780\$650aa8c0@KB6NAX>  
References: <509D352F.3060202@mindspring.com>  
<000701cdbebbb\$3abc6780\$650aa8c0@KB6NAX>  
Message-ID: <509D703A.9060903@mindspring.com>

Arden -

I probably need to re-word that.. :-)

"These CDs are not JUST scans of the original ..."

"While high resolution scans of these manuals are included on the CDs, the underchassis high resolution photos with all parts identified and keyed to a parts list are what makes them unique."

Copy writing is obviously NOT one of my strengths!! Think Sams Photofacts!

73, Garey - K40AH  
Glen Allen, VA

Drake 2-B, 2-C/2-NT, 4-A, 4-B, C-Line  
and TR-4/C Service Supplement CDs  
<www.k4oah.com>

Arden Allen wrote:

>> .....These CDs are NOT just scans of the original manuals that were  
> included with the equipment when new.  
> High resolution scans of the original manuals ARE on the CDs, along with  
> .....  
>  
>  
> Could you clarify that a bit for us cognitive deficient, Garey? Thanks.  
>  
> Arden  
>  
>

From bob at nofrowns.net Sun Nov 11 17:28:13 2012  
From: bob at nofrowns.net (Bob Jackson)  
Date: Sun, 11 Nov 2012 16:28:13 -0600  
Subject: [BoatAnchors] Strange Type of Resistor  
Message-ID: <EAE5A615F34A48299775F3FAFB673A0A@c1408123a>

I'm rebuilding a '50s era receiver - nothing special about it. However, there are two that appear to be normal 1/4 watt resistors, same size, usual color markings, etc. The "strangeness" comes from the fact that instead of normal, wire leads, they have flat, foil-like leads. More peculiar (to me) is that they each have two small holes in them, one at each end, that seem to go deep enough into the body that the "foil" can be seen inside.

I know these things are resistors, but I've never come across this form factor.  
Any help??

Bob AG5X

From spr at earthlink.net Sun Nov 11 17:29:06 2012  
From: spr at earthlink.net (Scott Robinson)  
Date: Sun, 11 Nov 2012 14:29:06 -0800  
Subject: [BoatAnchors] Strange Type of Resistor  
In-Reply-To: <EAE5A615F34A48299775F3FAFB673A0A@c1408123a>

References: <EAE5A615F34A48299775F3FAFB673A0A@c1408123a>

Message-ID: <50A026B2.6070500@earthlink.net>

I've seen tubular ceramic caps that look like that. The foil leads may be to lower the lead inductance a bit. See if they are open circuit; maybe they aren't resistors.

/scott

On 11/11/12 2:28 PM, Bob Jackson wrote:

> I'm rebuilding a '50s era receiver - nothing special about it. However, there are two what appear to be normal 1/4 watt resistors, same size, usual color markings, etc. The "strangeness" comes from the fact that instead of normal, wire leads, they have flat, foil-like leads. More peculiar (to me) is that they each have two small holes in them, one at each end, that seem to go deep enough into the body that the "foil" can be seen inside.

>

> I know these things are resistors, but I've never come across this form factor. Any help??

>

> Bob AG5X

>

> -----  
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

>

From johnmb at nc.rr.com Sun Nov 11 17:57:07 2012

From: johnmb at nc.rr.com (john)

Date: Sun, 11 Nov 2012 17:57:07 -0500

Subject: [BoatAnchors] [Boatanchors] Strange Type of Resistor

In-Reply-To: <EAE5A615F34A48299775F3FAFB673A0A@c1408123a>

References: <EAE5A615F34A48299775F3FAFB673A0A@c1408123a>

Message-ID: <6.2.1.2.2.20121111175643.03c97090@pop-server.nc.rr.com>

Hi Bob

What does the schematic show in that location?

John

At 05:28 PM 11/11/2012, Bob Jackson wrote:

>I'm rebuilding a '50s era receiver - nothing special about it. However,  
>there are two what appear to be normal 1/4 watt resistors, same size,  
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>instead of normal, wire leads, they have flat, foil-like leads. More



>peculiar (to me) is that they each have two small holes in them, one at  
>each end, that seem to go deep enough into the body that the "foil" can be  
>seen inside.

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>factor. Any help??

>

>Bob AG5X

>

>-----  
>Boatanchors mailing list

>Boatanchors at puck.nether.net

><https://puck.nether.net/mailman/listinfo/boatanchors>

From wb3fau55 at neo.rr.com Mon Nov 12 18:26:13 2012

From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)

Date: Mon, 12 Nov 2012 18:26:13 -0500

Subject: [BoatAnchors] Strange Type of Resistor

In-Reply-To: <EAE5A615F34A48299775F3FAFB673A0A@c1408123a>

Message-ID: <20121112232613.VATZQ.193458.root@cdptpa-web23-z01>

1/4 watt resistors in a 50s era rx? seems a bit small wattage. how about a  
picture? Russ.

---- Bob Jackson <bob at nofrowns.net> wrote:

> I'm rebuilding a '50s era receiver - nothing special about it. However, there  
> are two what appear to be normal 1/4 watt resistors, same size, usual color  
> markings, etc. The "strangeness" comes from the fact that instead of normal, wire  
> leads, they have flat, foil-like leads. More peculiar (to me) is that they each  
> have two small holes in them, one at each end, that seem to go deep enough into  
> the body that the "foil" can be seen inside.

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> Any help??

>

> Bob AG5X

>

>-----  
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From bob at nofrowns.net Mon Nov 12 18:44:15 2012

From: bob at nofrowns.net (Bob Jackson)

Date: Mon, 12 Nov 2012 17:44:15 -0600

Subject: [BoatAnchors] Strange Type of Resistor

References: <20121112232613.VATZQ.193458.root@cdptpa-web23-z01>

Message-ID: <3FFE8F60072E43B0A74A6C150FC4CC77@c1408123a>

My bad - probably 1/2 watt size. They're smaller than current 1W.

Still, they ARE resistors, not caps, and there are three of the little buggers. They're on the schematic as resistors and measure to those values. Weird.

Moving on ...

Bob AG5X

----- Original Message -----

From: <wb3fau55 at neo.rr.com>

To: "porch.boat" <boatanchors at theporch.com>; "qth.boat" <boatanchors at mailman.qth.net>; "puck.boat" <boatanchors at puck.nether.net>; "Bob Jackson" <bob at nofrowns.net>

Sent: Monday, November 12, 2012 5:26 PM

Subject: Re: [BoatAnchors] Strange Type of Resistor

1/4 watt resistors in a 50s era rx? seems a bit small wattage. how about a picture? Russ.

---- Bob Jackson <bob at nofrowns.net> wrote:

> I'm rebuilding a '50s era receiver - nothing special about it. However,  
> there are two what appear to be normal 1/4 watt resistors, same size,  
> usual color markings, etc. The "strangeness" comes from the fact that  
> instead of normal, wire leads, they have flat, foil-like leads. More  
> peculiar (to me) is that they each have two small holes in them, one at  
> each end, that seem to go deep enough into the body that the "foil" can be  
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>

> Bob AG5X

>

> -----  
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From gumbear at pacbell.net Mon Nov 12 19:38:03 2012

From: gumbear at pacbell.net (Arden Allen)

Date: Mon, 12 Nov 2012 16:38:03 -0800

Subject: [BoatAnchors] Strange Type of Resistor

References: <20121112232613.VATZQ.193458.root@cdptpa-web23-z01>  
<3FFE8F60072E43B0A74A6C150FC4CC77@c1408123a>

Message-ID: <000c01cdc137\$27084d70\$650aa8c0@KB6NAX>

I don't recall seeing anything like you described, Bob. The closest I can get is they may be wire wound resistors and the holes are rivets where the wire element ends are terminated. What are the values indicated on the schematic?

Arden Allen  
KB6NAX

Adopt a shelter dog,  
save an innocent life,  
and make a friend forever =:-)

> My bad - probably 1/2 watt size. They're smaller than current 1W.

Still, they ARE resistors, not caps, and there are three of the little buggers. They're on the schematic as resistors and measure to those values. Weird.

Moving on ...

Bob AG5X

.....

From jerry7proc at yahoo.com Wed Nov 14 14:23:42 2012  
From: jerry7proc at yahoo.com (Jerry Proc)  
Date: Wed, 14 Nov 2012 11:23:42 -0800 (PST)  
Subject: [BoatAnchors] Unknown Radio  
Message-ID: <1352921022.52522.YahooMailNeo@web121104.mail.ne1.yahoo.com>

Hello List Members,  
?

Can anyone identify the make and model of this transmitter/receiver?

?<http://jproc.ca/temp/unknownradio.jpg>

?

The radio is currently sitting in a radio museum in Norway and all I have to go on is a photo.

It was suggested this might be Canadian Marconi design?but it just doesn't have the right "look and feel " for being one of their products.??WWII era Cdn Marconi products always?had an external nameplate ?The front panel has a tally plate marked EARTH. If it was of North American manufacture, I would expect it to say

GROUND.

?

I have already indicated to the originator of the query to have the chassis pulled out of the case and examine the capacitors and other components for clues as to where they were manufactured.

?

--

Regards,

Jerry Proc

E-mail: jerry7proc at yahoo.com

From arc5 at ix.netcom.com Fri Nov 16 20:24:20 2012

From: arc5 at ix.netcom.com (David Stinson)

Date: Fri, 16 Nov 2012 19:24:20 -0600

Subject: [BoatAnchors] Seeking DAG Antenna

Message-ID: <F49864CB848C4B388C27A0CD54FFD865@CompaqSR5710F>

Please take a look at this Navy DAG direction finder:

<http://www.ebay.com/itm/121021056648>

You'll notice a telescopic Sense antenna with a large banana plug on the end. I need this antenna.

If anyone has one of these, I'd be glad to talk trade.

73 DE Dave AB5S

From wb0eq at yahoo.com Fri Nov 16 20:49:34 2012

From: wb0eq at yahoo.com (John Sehring)

Date: Fri, 16 Nov 2012 17:49:34 -0800 (PST)

Subject: [BoatAnchors] Moving contact lube

Message-ID: <1353116974.96710.YahooMailNeo@web161003.mail.bf1.yahoo.com>

Greetings Fellow Filamentarians!

Was having coffee & discussion with noted boatanchorite John VE6XI (he of AR-88 "Six Pack" fame) re suitable lube for radios with "large" moving contacts. ?

I was thinking of Hammarlund Super Pro SP-600 in particular. Too often, I've seen bits of metal underneath the band switch turret. Aghh. I don't know what can be done to reverse that. Also, how to prevent it from happening.

Also in mind are the National "catacomb" receivers, e.g. NC-100 and NC-240. And even the classic National HRO (with removable coil sets) may need contact maintenance. ?

The Hallicrafters SX-73 (R-274) is sometimes called "Halligan's Super Pro" also has a rotating turret.

Suggestions are tuner lube (the old fashioned variety from olde daze of yore), lithium grease, "white" grease, and even anti-sieze compound which may have finely powdered copper and/or aluminum in it.

Any thoughts, please?

?

--John Sehring VE6/WB0EQ nr. Calgary, Alberta, Canada

Home to: ?CR-88, R-390A, NC-125, R-4A, R-4B, T-4XB, T-4B, 75S-3B, 32S-3B, ?HXL-1, HQ-145, NC-183D, HRO, SP-600, NC-240D, SB-610, SB-620

From ranickel at comcast.net Fri Nov 16 20:52:24 2012

From: ranickel at comcast.net (Robert Nickels)

Date: Fri, 16 Nov 2012 19:52:24 -0600

Subject: [BoatAnchors] Moving contact lube

In-Reply-To: <1353116974.96710.YahooMailNeo@web161003.mail.bf1.yahoo.com>

References: <1353116974.96710.YahooMailNeo@web161003.mail.bf1.yahoo.com>

Message-ID: <50A6EDD8.80706@comcast.net>

On 11/16/2012 7:49 PM, John Sehring wrote:

> Any thoughts, please?

Lubriplate Aero:

<http://www.lubriplate.com/Products/Multi-Purpose-Greases/Aero.aspx>

73, Bob W9RAN

From spr at earthlink.net Fri Nov 16 21:18:08 2012

From: spr at earthlink.net (Scott Robinson)

Date: Fri, 16 Nov 2012 18:18:08 -0800

Subject: [BoatAnchors] Moving contact lube

In-Reply-To: <1353116974.96710.YahooMailNeo@web161003.mail.bf1.yahoo.com>

References: <1353116974.96710.YahooMailNeo@web161003.mail.bf1.yahoo.com>

Message-ID: <50A6F3E0.5070304@earthlink.net>

Foloks,

I don't know of a product besides Caig stuff (D5 or DeOxit) , which is oily and stays around rather than evaporating as WD-40 will do, to recommend.

However, my experience with white greases such as ordinary Lubriplate is that after 20 years or so they turn quite hard and will prevent contact and make motion difficult. I wouldn't use them, myself.

I remember from my school days the frontier dweller's recipe for making soap: boil up some fat with wood ashes. Soap is a molecule with one end that is ionic, like water, and one that is fatty, so it can comfortably associate with both water and oily stuff.

The above recipe contains light metal salts in the ashes and fatty stuff in the animal fat. Lithium greases contain light metal salts (lithium...) and grease (=fat). I am not surprised that after a while it turns to a fairly hard soapy substance. Zenith radios circa 1940 used such lubricants on the switch contacts, and you have to physically scrape it off it to get contact re-established.

Ideas welcome!

/scott

On 11/16/12 5:49 PM, John Sehring wrote:

> Greetings Fellow Filamentarians!

>

> Was having coffee & discussion with noted boatanchorite John VE6XI (he of AR-88 "Six Pack" fame) re suitable lube for radios with "large" moving contacts.

>

> I was thinking of Hammarlund Super Pro SP-600 in particular. Too often, I've seen bits of metal underneath the band switch turret. Aghh. I don't know what can be done to reverse that. Also, how to prevent it from happening.

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> Also in mind are the National "catacomb" receivers, e.g. NC-100 and NC-240. And even the classic National HRO (with removable coil sets) may need contact maintenance.

>

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>

> Suggestions are tuner lube (the old fashioned variety from olde daze of yore), lithium grease, "white" grease, and even anti-sieze compound which may have finely powdered copper and/or aluminum in it.

>

> Any thoughts, please?

>

> --John Sehring VE6/WB0EQ nr. Calgary, Alberta, Canada

>

> Home to: CR-88, R-390A, NC-125, R-4A, R-4B, T-4XB, T-4B, 75S-3B, 32S-3B, HXL-1, HQ-145, NC-183D, HRO, SP-600, NC-240D, SB-610, SB-620

>

> -----  
> BoatAnchors mailing list

> BoatAnchors at theporch.com

> <https://minime.theporch.com/mailman/listinfo/boatanchors>

>

From wb3fau55 at neo.rr.com Sun Nov 18 09:37:14 2012  
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)  
Date: Sun, 18 Nov 2012 9:37:14 -0500  
Subject: [BoatAnchors] Fwd: hurricane Sandy- W3FJJ Chuck  
Message-ID: <20121118143714.2GDJO.20667.root@cdptpa-web26-z01>

From kd5byb at kd5byb.net Sun Nov 18 18:12:19 2012  
From: kd5byb at kd5byb.net (Ben Hall)  
Date: Sun, 18 Nov 2012 17:12:19 -0600  
Subject: [BoatAnchors] Moving contact lube  
In-Reply-To: <1353116974.96710.YahooMailNeo@web161003.mail.bf1.yahoo.com>  
References: <1353116974.96710.YahooMailNeo@web161003.mail.bf1.yahoo.com>  
Message-ID: <50A96B53.1040606@kd5byb.net>

Good evening John,

The first thing that came to my mind was dielectric grease as sold at the auto-parts store for the lubrication of spark plug boots and the like.

It seems to hold up very well to the high temperatures found under the hood in my cars, so I imagine it won't harden up like standard lithium grease.

One of my cars, now long-gone, a 1994 Ford Probe with the 2.0L engine used to \*eat\* plug wires due to the fact that the boot reached deep down into the head of the engine and the resulting heat would degrade the rubber in no time. Yet, even on that car, the grease never seemed to degrade. Eventually, I went for a set of racing wires and no longer had the problem.

Being that it is designed for electrical connections, I'd assume it wouldn't have anything in it that would degrade the metal contacts.

However, I've never tried it, so your mileage may vary...

thanks much and 73,  
ben, kd5byb

On 11/16/2012 7:49 PM, John Sehring wrote:

> Was having coffee & discussion with noted boatanchorite John VE6XI  
> (he of AR-88 "Six Pack" fame) re suitable lube for radios with  
> "large" moving contacts.

>

> Any thoughts, please?

From gumbear at pacbell.net Sun Nov 18 22:08:41 2012  
From: gumbear at pacbell.net (Arden Allen)  
Date: Sun, 18 Nov 2012 19:08:41 -0800  
Subject: [BoatAnchors] Moving contact lube  
References: <1353116974.96710.YahooMailNeo@web161003.mail.bf1.yahoo.com>  
<50A96B53.1040606@kd5byb.net>  
Message-ID: <002f01cdc606\$c6f152e0\$650aa8c0@KB6NAX>

> The first thing that came to my mind was dielectric grease as sold at the auto-parts store for the lubrication of spark plug boots and the like.  
.....

Ben, I recommend you take some time to learn about lubricants for sliding contacts. I don't know if it's relevant but connector grease does not have the same requirements as a sliding contact lube has. The thing you don't want in a sliding contact lube is anything that can act to wear contact plating away, such as silicates. Google is your friend.

Arden Allen  
KB6NAX

I love a dog. He does nothing for political reasons.  
-Will Rogers

From knjhanlon at msn.com Mon Nov 19 14:51:57 2012  
From: knjhanlon at msn.com (JAMES HANLON)  
Date: Mon, 19 Nov 2012 12:51:57 -0700  
Subject: [BoatAnchors] Moving contact lube  
Message-ID: <SNT106-W343127B2CC282551CCED51A0560@phx.gbl>

John,

This answer may be a little bit "windy," so I will apologize for that to start with.

First let me say that I'm an Electrical Engineer, and that I spent 25+ years with Bell Labs dealing with electromechanical devices such as relays, switches, and connectors and then an additional 13+ years with Sandia National Labs, also dealing with connectors. So I have some background in the electrical contact area and in particular with connector lubricants.



I've also been a ham since 1952, and I still have the HRO-50 that I got that year which of course uses sliding contacts on its coil drawers.

My first response to your question is that the contacts in these receivers were designed not to use lubricants. There is a considerable amount of "wipe" in these contacts as they are mated, and they are also designed with surface force sufficient to clean the contact surfaces when they are mated. So you should be cautious when deciding to lubricate these contacts, and do it only if they are exhibiting a real failure.

In the case of the HRO coil contacts, I have found over the years that they sometimes need to be "cleaned." I accomplish that by gently rubbing them with a pencil eraser. One of the big, pink rubber erasers does the job nicely, and I clean both the buttons on the coil drawers and the mating finger surfaces in the receiver. I've also cleaned the coil contacts on an HRO Senior, HRO-5TA1, and HRO-50R1 that I've acquired over the years. All of them responded favorably to the "treatment" and are showing no ill effects or signs of wearing out.

I also have an NC-101X and an NC-200, both sliding-coil National receivers. I may have cleaned the contacts at one time with some De-oxit, but beyond that I've done nothing and they are both working quite reliably.

I have an SP-600 and an SX-73, and I think I did the eraser-buff cleaning of the ends of the fingers on the coil turret connectors, probably once years ago when I acquired the radios and was putting them into service. Since then no contact problems have occurred.

But - if I did run into a problem such as you described where I actually saw debris that had worn off the switch contacts in such a receiver, the one lubricant that I would use is ILFC 1006 CON TAC as made by International Lubrication and Fuel Consultants, Inc in Rio Rancho, NM. You can get more information about this at <http://www.ilfcinc.com/Product/1006.asp> . This material was originally formulated by a Bell Labs chemist, George Kitchen (sk) for use on electrical connectors in telephone apparatus. It successfully prevents both chemical and "fretting" corrosion. It does not deteriorate into an insulating layer over time. It has an extremely wide operating temperature range. It lasts essentially forever. It displaces water. It does not break down into an insulating solid - as silicone based lubricants do - under electrical arcing situations. I understand that the US Air Force now uses it on F-16s to clear up a fretting corrosion problem that they were experiencing.

I just left a query on the ILFC web page asking about the cost of a minimum amount of ILFC 1006. When I get a reply I will let you know what they say.

Jim Hanlon, W8KGI

From spr at earthlink.net Mon Nov 19 16:24:26 2012  
From: spr at earthlink.net (spr at earthlink.net)

Date: Mon, 19 Nov 2012 13:24:26 -0800 (GMT-08:00)  
Subject: [BoatAnchors] Moving contact lube  
Message-ID: <12898255.1353360267712.JavaMail.root@mswamui-bichon.atl.sa.earthlink.net>

Hi James,

EXCELLENT information, just what's needed here! Many thanks for your contribution, and I learned something today.

Regards,

Scott Robinson, the person who advised against lithium greases on contacts.

-----Original Message-----

>From: JAMES HANLON <knjhanlon at msn.com>

>Sent: Nov 19, 2012 11:51 AM

>To: wb0eq at yahoo.com, boatanchors <boatanchors at theporch.com>

>Subject: Re: [BoatAnchors] Moving contact lube

>

>

>John,

>

>This answer may be a little bit "windy," so I will apologize for that to start with.

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>

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>

>-----  
>BoatAnchors mailing list

>BoatAnchors at theporch.com

><https://minime.theporch.com/mailman/listinfo/boatanchors>

From gumbear at pacbell.net Mon Nov 19 16:48:28 2012

From: gumbear at pacbell.net (Arden Allen)

Date: Mon, 19 Nov 2012 13:48:28 -0800

Subject: [BoatAnchors] Moving contact lube

References: <SNT106-W343127B2CC282551CCED51A0560@phx.gbl>

Message-ID: <002a01cdc69f\$a012d1a0\$650aa8c0@KB6NAX>

Jim confesses:

> This answer may be a little bit "windy," so I will apologize for that to start with. ....

I'll add my breeze too: Jim, having worked in new product development for enough years I can say everything you said is spot on for equipment designed to be relatively immune to contamination from dust, internally created debris, and corrosive and polymeric air pollution. I have an SX-28 that has badly worn rotary switches, no silver plate left, just copper showing in the wiping tracks. What were the causes of such extreme wear is anybody's guess. There are a variety of treatises about on the subject of hauling contact wear on switches but I think they are hidden away from prying eyes by an industry that is hostile to the "let's make it work forever" folks, like our boatanchorite brothers and sisters.

Dirt, corrosion and insulative films must be removed from contact areas by whatever means necessary that avoids adding another damaging quotient to the problem. Restoring contact conditions to Jim's pristine contaminant free conditions would be most desirable but sliding contact surfaces, once damaged, will never again function as originally intended. The ideal solution to restoring contact function to an acceptable level of reliability requires the properties of solvency of both hydrocarbon and water soluble soils, solvency of corrosion salts, lubrication of the contact surfaces to avoid fretting (balling of the metals), and rinsibility by excessive application of the treatment. That means you blast away at the dysfunctional switch with the appropriate contact cleaner and lubricant solution, actuate the switch until function is restored, and then mop up the excessive solution remaining. Because not all switches are kept from accumulating contaminants the ideal solution must be a liquid solution that is a good dielectric, wets reasonably well, "stays" where it is put, does not dry out, and insulates the contacts from atmospheric adulterants while assuring metal-to-metal intimacy for low contact resistance.

Polyphenyl ether, a type of synthetic lubricating solvent is a constituent of some of the better quality contact cleaners available at modest cost such as MG Chemicals' Super Contact Cleaner and Caig Labs' ProGold (follow mfr's application instructions). I have no axe to grind, I just have been using these products for years without complaint.

I quote from the Wikipedia article,  
[http://en.wikipedia.org/wiki/Polyphenyl\\_ether](http://en.wikipedia.org/wiki/Polyphenyl_ether), the following:

"Electronic connector lubricants

"5R4E PPE has a surface tension of 49.9 dynes/cm, which is amongst the highest in pure organic liquids. Because of this, this PPE and the other PPEs do not effectively wet metal surfaces. This property is useful when migration of a lubricant from one part of the equipment to another part must be avoided, such as in certain electronic devices. A thin film of polyphenyl ether on a surface is not a thin contiguous film as one would envision, but rather comprises tiny droplets. This PPE property tends to keep the film stationary, or at least to cause it to remain in the area where the

lubrication is needed, rather than migrating away by spreading and forming a new surface. As a result, contamination of other components and equipment, which do not require a lubricant, is avoided. The high surface tension of PPEs, therefore, makes them useful in lubricating electronic contacts.

"Polyphenyl ether lubricants have a 30-year history of commercial service for connectors with precious and base metal contacts in telecom, automotive, aerospace, instrumentation and general-purpose applications.[9][10] In addition to maintaining the current flow and providing long-term lubrication, PPEs offer protection to connectors against aggressive acidic and oxidative environments. By providing a protective surface film, polyphenyl ethers not only protect connectors against corrosion but also against vibration-related wear and abrasion that leads to fretting wear. The devices that benefit from the specialized properties of PPEs include cell phones, printers and a variety of other electronic appliances. The protection lasts for decades or for the life of the equipment."

Arden Allen  
KB6NAX

If you pick up a starving dog and  
make him prosperous, he will not  
bite you. This is the principle  
difference between a dog and  
a man. -Mark Twain

From knjhanlon at msn.com Mon Nov 19 17:18:49 2012  
From: knjhanlon at msn.com (JAMES HANLON)  
Date: Mon, 19 Nov 2012 15:18:49 -0700  
Subject: [BoatAnchors] Moving contact lube  
In-Reply-To: <002a01cdc69f\$a012d1a0\$650aa8c0@KB6NAX>  
References: <SNT106-W343127B2CC282551CCED51A0560@phx.gbl>,  
<002a01cdc69f\$a012d1a0\$650aa8c0@KB6NAX>  
Message-ID: <SNT106-W3917F67A598DFF9D523A30A0560@phx.gbl>

Arden,

Well done!

One thing I wonder about. If the high surface tension of PPEs keeps them from wetting the metal contact surface, then how do they provide a protective surface film to protect against aggressive acidic and oxidative environments? The lubricant needs to cover and thereby to seal the surface against corrosive atmospheric species such as oxygen and sulfur in order to prevent corrosion from occurring. In the case of fretting corrosion, it also needs to wet the surface of

the wear particles so that they do not corrode and become non-conductive.

Any thoughts?

Jim

> From: gumbear at pacbell.net  
> To: knjhanlon at msn.com; wb0eq at yahoo.com; boatanchors at theporch.com  
> Subject: Re: [BoatAnchors] Moving contact lube  
> Date: Mon, 19 Nov 2012 13:48:28 -0800  
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> JIm confesses:  
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> Arden Allen  
> KB6NAX  
>  
> If you pick up a starving dog and  
> make him prosperous, he will not  
> bite you. This is the principle  
> difference between a dog and  
> a man. -Mark Twain  
>

From smithab11 at comcast.net Mon Nov 19 17:56:31 2012  
From: smithab11 at comcast.net (B Smith)  
Date: Mon, 19 Nov 2012 17:56:31 -0500

Subject: [BoatAnchors] Moving contact lube  
In-Reply-To: <002a01cdc69f\$a012d1a0\$650aa8c0@KB6NAX>  
References: <SNT106-W343127B2CC282551CCED51A0560@phx.gbl>  
<002a01cdc69f\$a012d1a0\$650aa8c0@KB6NAX>  
Message-ID: <7DDF5CD03941487E800C9E1EA01BDC20@De11560>

I assume that WD-40 is out of the question.

73

breck k4che  
Dover, Delaware, ain't nutten in Dover except  
A NASCAR track, chickens, and hams that can't solder.

From navy.radio at gmail.com Mon Nov 19 18:46:12 2012  
From: navy.radio at gmail.com (Nick England)  
Date: Mon, 19 Nov 2012 18:46:12 -0500  
Subject: [BoatAnchors] Moving contact lube  
In-Reply-To: <SNT106-W3917F67A598DFF9D523A30A0560@phx.gbl>  
References: <SNT106-W343127B2CC282551CCED51A0560@phx.gbl>  
<002a01cdc69f\$a012d1a0\$650aa8c0@KB6NAX>  
<SNT106-W3917F67A598DFF9D523A30A0560@phx.gbl>  
Message-ID: <CAB55hNc5VMoS0c-HDqAaxiccYMYbr6PY8b\_M\_0+Ekrrrtqowfbg@mail.gmail.com>

Here's an off-the-wall comment - Model railroad enthusiasts have the problem of maintaining electrical contact between the loco wheels and the track. Wahl's Hair Clipper Oil (used for barbershop trimmers) is a magic elixer of choice - anyone ever tried this for preventing corrosion on other electrical contacts?

Also found on line "Conducta Lube" for Model railroad contacts, motor brushes, etc.  
[http://aerocarlubricants.com/index.php?main\\_page=product\\_info&cPath=1&products\\_id=4](http://aerocarlubricants.com/index.php?main_page=product_info&cPath=1&products_id=4)

From mike at oldaudio.net Mon Nov 19 18:54:50 2012  
From: mike at oldaudio.net (Mike Durff)  
Date: Mon, 19 Nov 2012 15:54:50 -0800 (PST)  
Subject: [BoatAnchors] moving contact lube  
Message-ID: <1353369290.9771.YahooMailClassic@web5719.biz.mail.ne1.yahoo.com>

Can't beat these folks... they have grease, moving contact cleaners, etc... for every need  
<http://store.caig.com>

The old standby, Cramolin, is available here:



?http://www.conrad-uk.com/ce/en/brand/CRAMOLIN

From spr at earthlink.net Mon Nov 19 19:20:45 2012  
From: spr at earthlink.net (spr at earthlink.net)  
Date: Mon, 19 Nov 2012 16:20:45 -0800 (GMT-08:00)  
Subject: [BoatAnchors] Moving contact lube  
Message-ID: <10043832.1353370846211.JavaMail.root@mswamui-bichon.atl.sa.earthlink.net>

WD-40 is deodorized kerosene and will evaporate in a few months. It's good for cleaning  
and for softening up old grease, but not as a lubricant for any length of time.

/scott

-----Original Message-----

>From: B Smith <smithab11 at comcast.net>  
>Sent: Nov 19, 2012 2:56 PM  
>To: Boat Anchors Old <boatanchors at theporch.com>  
>Subject: Re: [BoatAnchors] Moving contact lube  
>  
>I assume that WD-40 is out of the question.  
>  
>73  
>  
>breck k4che  
>Dover, Delaware, ain't nutten in Dover except  
>A NASCAR track, chickens, and hams that can't solder.

From wb3fau55 at neo.rr.com Mon Nov 19 20:20:38 2012  
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)  
Date: Mon, 19 Nov 2012 20:20:38 -0500  
Subject: [BoatAnchors] Moving contact lube  
In-Reply-To: <10043832.1353370846211.JavaMail.root@mswamui-bichon.atl.sa.earthlink.net>  
Message-ID: <20121120012038.ZU0EA.28284.root@cdptpa-web26-z01>

how about RCA Big Red or Blue Stuff?

---- spr at earthlink.net wrote:

>  
>  
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> and for softening up old grease, but not as a lubricant for any length of time.  
>  
> /scott  
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> >From: B Smith <smithab11 at comcast.net>  
> >Sent: Nov 19, 2012 2:56 PM  
> >To: Boat Anchors Old <boatanchors at theporch.com>  
> >Subject: Re: [BoatAnchors] Moving contact lube  
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>  
> -----  
> BoatAnchors mailing list  
> BoatAnchors at theporch.com  
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

From k1lky at earthlink.net Mon Nov 19 21:23:08 2012  
From: k1lky at earthlink.net (Roy Morgan)  
Date: Mon, 19 Nov 2012 21:23:08 -0500  
Subject: [BoatAnchors] moving contact lube  
In-Reply-To: <1353369290.9771.YahooMailClassic@web5719.biz.mail.ne1.yahoo.com>  
References: <1353369290.9771.YahooMailClassic@web5719.biz.mail.ne1.yahoo.com>  
Message-ID: <4D50E6EB-8174-4B0F-AFC1-616638479E00@earthlink.net>

On Nov 19, 2012, at 6:54 PM, Mike Durff wrote:

> Can't beat these folks... they have grease, moving contact cleaners,  
> etc... for every need  
> <http://store.caig.com>

I have used and recommend Caig products. Their product names have changed a while ago..

- De-Oxit D5 cleans and restored metal contacts.
- Caig MCL (Moving Contact Lubricant) know known as Fader Lube is for wiping contacts such as audio faders, volume controls and other such moving contact devices that might be made with plastic and conductive coatings.

- ProGold is for precious metal contacts such as gold, silver and others used in switches.

> The old standby, Cramolin, is available here:  
> <http://www.conrad-uk.com/ce/en/brand/CRAMOLIN>

Cramolin is legendary. One legend I heard many years ago (10 or more) is that Cramolin at least then contained things that the US "authorities" (OSHA, EPA, other regulatory agencies, ?) deemed undesirable, so it was prohibited here in the US.  
I would doubt that the makers would ship it to the US if this is true.

Roy

Roy Morgan  
k1lky at earthlink.net  
K1LKY Since 1958 - Keep 'em Glowing!

From spr at earthlink.net Mon Nov 19 22:30:40 2012  
From: spr at earthlink.net (spr at earthlink.net)  
Date: Mon, 19 Nov 2012 19:30:40 -0800 (GMT-08:00)  
Subject: [BoatAnchors] moving contact lube  
Message-ID: <32978790.1353382241093.JavaMail.root@mswamui-bichon.atl.sa.earthlink.net>

Well, Cramolin is, I think, made in Southern California, so shipping it here is not an issue. I have used it since the early '1980s and have never had trouble buying it.

/scott

-----Original Message-----

>From: Roy Morgan <k1lky at earthlink.net>  
>Sent: Nov 19, 2012 6:23 PM  
>To: Mike Durff <mike at oldaudio.net>  
>Cc: BoatAnchors at theporch.com  
>Subject: Re: [BoatAnchors] moving contact lube

>

>

>On Nov 19, 2012, at 6:54 PM, Mike Durff wrote:

>

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>  
>Roy  
>  
>Roy Morgan  
>k1lky at earthlink.net  
>K1LKY Since 1958 - Keep 'em Glowing!  
>

From gumbear at pacbell.net Mon Nov 19 23:03:17 2012  
From: gumbear at pacbell.net (Arden Allen)  
Date: Mon, 19 Nov 2012 20:03:17 -0800  
Subject: [BoatAnchors] Moving contact lube  
References: <SNT106-W343127B2CC282551CCED51A0560@phx.gbl>,  
<002a01cdc69f\$a012d1a0\$650aa8c0@KB6NAX>  
<SNT106-W3917F67A598DFF9D523A30A0560@phx.gbl>  
Message-ID: <002201cdc6d3\$fd8d2fe0\$650aa8c0@KB6NAX>

> One thing I wonder about. If the high surface tension of PPEs keeps them  
from wetting the metal contact surface, then how do they provide a  
protective surface film to protect against aggressive acidic and oxidative  
environments? The lubricant needs to cover and thereby to seal the surface  
against corrosive atmospheric species such as oxygen and sulfur in order to  
prevent corrosion from occurring. In the case of fretting corrosion, it also  
needs to wet the surface of the wear particles so that they do not corrode  
and become non-conductive.

Any thoughts? -Jim

Two thoughts come to mind: Wiki does not always have the last word on some subjects and perhaps after the article's walk through the chemistry the description of PPE used as a contact cleaner and lube was a gamble. My other thought is that PPE is only one of several constituents in a blend that solves the apparent inconsistency you point out. Not being a chemist that's as far as I can go.

Arden

From k1lky at earthlink.net Mon Nov 19 23:12:49 2012  
From: k1lky at earthlink.net (Roy Morgan)  
Date: Mon, 19 Nov 2012 23:12:49 -0500  
Subject: [BoatAnchors] moving contact lube  
In-Reply-To: <32978790.1353382241093.JavaMail.root@mswamui-bichon.atl.sa.earthlink.net>  
References: <32978790.1353382241093.JavaMail.root@mswamui-bichon.atl.sa.earthlink.net>  
Message-ID: <3892CA34-6FC3-4756-9E29-A3A32DDC0F69@earthlink.net>

On Nov 19, 2012, at 10:30 PM, spr at earthlink.net wrote:

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> it here is not an issue. I have used it since the early '1980s and  
> have never had trouble buying it.

Scott.

The plot thickens.

From:  
<http://www.soundfirst.com/technical.html>

"The best contact, switch, and potentiometer cleaner I have ever used is Cramolin Contaclean, formerly known as Cramolin Red. Caig used to import this from Germany in bulk, package it in spray cans here in the USA, and sell it as their own product. It seems at some point Caig decided to sell a different product (maybe they make more money on it?) Caig then put out a totally misleading story about the EPA and Cramolin to explain why it was no longer available. Actually the EPA had problems only with the propellant Caig added when they packaged Cramolin in spray cans, and not with Cramolin itself. Caig's replacement product is called De-Oxit, which in my experience does not work anywhere near as good as Cramolin Contaclean. A couple of years ago I discovered Cramolin in Germany, and bought a case of Contaclean.

It works just as good as it did back when I was buying it from Caig. The German packaging puts over twice as much in a can as Caig did, which makes it a better value. Unfortunately I don't know of a current USA source."

I'll keep looking, but if anyone knows of a US source, let us all know.

Roy

Roy Morgan  
k1lky at earthlink.net  
K1LKY Since 1958 - Keep 'em Glowing!

From gumbear at pacbell.net Tue Nov 20 01:31:17 2012  
From: gumbear at pacbell.net (Arden Allen)  
Date: Mon, 19 Nov 2012 22:31:17 -0800  
Subject: [BoatAnchors] moving contact lube  
References: <32978790.1353382241093.JavaMail.root@mswamui-bichon.atl.sa.earthlink.net>  
<3892CA34-6FC3-4756-9E29-A3A32DDC0F69@earthlink.net>  
Message-ID: <001c01cdc6e9\$de14d800\$650aa8c0@KB6NAX>

You may be able purchase Cramolin Contaclean from Farnell in the UK, the outfit that owns Newark Electronics, but it may take forever to get here because it's probably banned from air transport. Here's the link to the MSDS:

<http://www.farnell.com/datasheets/1493224.pdf>

The problem I have with the stuff is it's flammable like all the cheaper contact cleaners nowadays, the way manufacturers reduce the amount of ozone destroyers they release into the atmosphere. Don't use on live high voltage circuits!

Arden

> "The best contact, switch, and potentiometer cleaner I have ever used is Cramolin Contaclean, formerly known as Cramolin Red. Caig used to import this from Germany in bulk, package it in spray cans here in the USA, and sell it as their own product. It seems at some point Caig decided to sell a different product (maybe they make more money on it?) Caig then put out a totally misleading story about the EPA and Cramolin to explain why it was no longer available. Actually the EPA

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I'll keep looking, but if anyone knows of a US source, let us all know.

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k1lky at earthlink.net  
K1LKY Since 1958 - Keep 'em Glowing!

-----  
BoatAnchors mailing list  
BoatAnchors at theporch.com  
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From gumbear at pacbell.net Tue Nov 20 01:46:21 2012  
From: gumbear at pacbell.net (Arden Allen)  
Date: Mon, 19 Nov 2012 22:46:21 -0800  
Subject: [BoatAnchors] Moving contact lube  
References: <SNT106-W343127B2CC282551CCED51A0560@phx.gbl>,  
<002a01cdc69f\$a012d1a0\$650aa8c0@KB6NAX>  
<SNT106-W3917F67A598DFF9D523A30A0560@phx.gbl>  
Message-ID: <003101cdc6ea\$c43de510\$650aa8c0@KB6NAX>

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Jim, as an example to answer you question, here is the MSDS for MG Chemicals Super Contact Cleaner:

<http://www.mgchemicals.com/downloads/msds/english/801b-aerosol.pdf>

Arden

From gumbear at pacbell.net Tue Nov 20 02:02:27 2012  
From: gumbear at pacbell.net (Arden Allen)  
Date: Mon, 19 Nov 2012 23:02:27 -0800  
Subject: [BoatAnchors] moving contact lube  
References: <32978790.1353382241093.JavaMail.root@mswamui-bichon.atl.sa.earthlink.net>  
<3892CA34-6FC3-4756-9E29-A3A32DDC0F69@earthlink.net>  
Message-ID: <004b01cdc6ed\$06071a50\$650aa8c0@KB6NAX>

Speaking of flammability of contact cleaners, the respective MSDS's disclose Cramolin Contaclean has a flash point of -26C (-14.6F). MG Chemicals has a flash point of 42C (107.6F). Be wary of what you purchasith.

Arden Allen  
KB6NAX

Properly trained a man can be  
dog's best friend. -Corey Ford

From mike at oldaudio.net Tue Nov 20 12:23:01 2012  
From: mike at oldaudio.net (Mike Durff)  
Date: Tue, 20 Nov 2012 09:23:01 -0800 (PST)  
Subject: [BoatAnchors] moving contact lube  
Message-ID: <1353432181.63805.YahooMailClassic@web5704.biz.mail.ne1.yahoo.com>

AFAIK: Cramolin was first used in the late 1800's to clean motor armatures / commutators any other like moving electrical parts. And yes, Caig once carried Cramolin, and now suggests that the 100% De-Oxit is very close to the original.? WD-40; use in emergency only and on mechanical moving parts...yes, it will evaporate and leave a dust/dirt attracting residue.  
Thanks

From sierra.victor at telia.com Tue Nov 20 14:49:01 2012  
From: sierra.victor at telia.com (Sven Grandell)  
Date: Tue, 20 Nov 2012 20:49:01 +0100  
Subject: [BoatAnchors] moving contact lube  
In-Reply-To: <1353432181.63805.YahooMailClassic@web5704.biz.mail.ne1.yahoo.com>  
References: <1353432181.63805.YahooMailClassic@web5704.biz.mail.ne1.yahoo.com>  
Message-ID: <8216C5623C06402384AFCD700E5D5E@mobile2>

None of you has told about Circuitworks silver conductive grease CW7100 from Chemtronics.  
I have used it in my SP-600 bandswitch and for several years now. No problem



at all.

/Sven, SM3SV

From gumbear at pacbell.net Tue Nov 20 19:12:47 2012  
From: gumbear at pacbell.net (Arden Allen)  
Date: Tue, 20 Nov 2012 16:12:47 -0800  
Subject: [BoatAnchors] moving contact lube  
References: <1353432181.63805.YahooMailClassic@web5704.biz.mail.ne1.yahoo.com>  
<8216C5623C06402384AFCDAF700E5D5E@mobile2>  
Message-ID: <002b01cdc77c\$f2715c40\$650aa8c0@KB6NAX>

Yikes! I know of no application in general electronics regarding rotary and many other types of switch mechanisms where conductive grease is required. Using metal bearing grease runs the risk of unintended conductive pathways between circuits. Know what you are doing is what I advise.

Arden Allen  
KB6NAX

The average dog is a nicer person than  
the average person. -Andy Rooney

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From knjhanlon at msn.com Tue Nov 20 20:37:09 2012  
From: knjhanlon at msn.com (JAMES HANLON)  
Date: Tue, 20 Nov 2012 18:37:09 -0700  
Subject: [BoatAnchors] Moving contact lube  
Message-ID: <SNT106-W75AE8E898A1A636DE83DCA0540@phx.gbl>

John,

I heard from John Furlong at International Lubrication and Fuel Consultants. I

will paste his messages below this one. As you can see, their lubricant ILFC 1006 is available, but it would be somewhat expensive to ship. That one pint can would undoubtedly be a lifetime supply. I'll let you take it from here if you are interested.

Jim Hanlon, W8KGI

Mr. Hanlon,

>

> I remember well working on a project or two with you years ago. It's good to hear from you again.

>

> A 1 pint can of ILFC Ten-06 will cost you \$26.67 (plus tax). This is NOT an aerosol can, it would need to be brushed/dipped/daubed on. We can ship this, but hazmat shipping would likely cost more than the product. We usually have some here at our office, but it's always better to call first.

>

> Let us know when you're coming and we'll have it ready.

>

> Bob Furlong

> ILFC, Inc.

> 505-892-1666

Jim,

The Ten 06 ships as a Flammable Liquid. Hazmat fee alone is about \$27 per package plus the actual shipping. This would apply to ALL sizes. Special packaging is also required, although this can be avoided with very small quantities if properly marked and classified. All hazmat shippers are supposed to be trained, though this is unevenly enforced. All the rules make it difficult to get much done without a major effort. We have everything here to ship it, and we will if you would like, but it would be difficult for you to be compliant on your own.

Let me know if You have any more questions.

Bob

From gumbear at pacbell.net Wed Nov 21 04:07:12 2012

From: gumbear at pacbell.net (Arden Allen)

Date: Wed, 21 Nov 2012 01:07:12 -0800

Subject: [BoatAnchors] Moving contact lube

References: <SNT106-W75AE8E898A1A636DE83DCA0540@phx.gbl>

Message-ID: <000701cdc7c7\$9c131cd0\$650aa8c0@KB6NAX>

Jim, will Mr. Furlong e-mail you a MSDS for ILFC1006? I'd like to know what's different about if from the more commonly available contact cleaner

lubes.

Arden

----- Original Message -----

From: JAMES HANLON

To: boatanchors ; wb0eg at yahoo.com ; bfurlong at ilfc.com

Sent: Tuesday, November 20, 2012 5:37 PM

Subject: Re: [BoatAnchors] Moving contact lube

John,

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Bob

-----  
BoatAnchors mailing list  
BoatAnchors at theporch.com  
<https://minime.theporch.com/mailman/listinfo/boatanchors>

From esieb at sympatico.ca Thu Nov 22 19:26:14 2012  
From: esieb at sympatico.ca (Ed Sieb)  
Date: Thu, 22 Nov 2012 19:26:14 -0500  
Subject: [BoatAnchors] Testing only. Thank you.  
Message-ID: <BLU0-SMTP71CF9132A1C70BBD325354C95A0@phx.gbl>

Testing only. Thank you.

Ed, VA3ES

From n7msk at charter.net Sun Nov 25 09:42:39 2012  
From: n7msk at charter.net (Mike Katz)  
Date: Sun, 25 Nov 2012 06:42:39 -0800  
Subject: [BoatAnchors] Pats needed  
Message-ID: <01ac01cdcb1b\$1ecc6680\$5c653380\$@charter.net>

I am putting together a very clean Viking Valiant 11 that needs the L.V. Power Transformer (Part Number 22.1282), and could use the VFO module as well.

If you have these parts either standalone or a Parts Only radio that you would like to rid yourself of please let me know.

Mike - N7MSK

From jerry7proc at yahoo.com Thu Nov 29 19:58:47 2012

From: jerry7proc at yahoo.com (Jerry Proc)  
Date: Thu, 29 Nov 2012 16:58:47 -0800 (PST)  
Subject: [BoatAnchors] Collins Radio of Canada  
Message-ID: <1354237127.49571.YahooMailNeo@web121106.mail.ne1.yahoo.com>

Helllo Everyone,

?

This web site features Collins Radio of Canada, an era which existed from 1956 to 1991.

<http://www.antiquehistory.net/Collins/>

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Regards,

Jerry Proc

E-mail: jerry7proc at yahoo.com